

**REMARKS**

Applicants thank the Examiner for the very thorough consideration given the present application. Claims 1-3, 5 and 8-9 are currently pending in this application. No new matter has been added by way of the present amendment. For instance, the amendment to claim 1 is supported by the original Specification at, for example, paragraphs [0043]-[0045] and [0060] (paragraph numbers refer to U.S. 2007/0190446). Accordingly, no new matter has been added.

At the outset, the present application is believed to be in condition for allowance. Entry of the accompanying amendment is requested under 37 C.F.R. §1.116, as the amendment does not raise any new issues which would require further search and/or consideration by the Examiner. Furthermore, Applicants request entry of this amendment in order to place the claims in better form for consideration on Appeal.

In view of the amendments and remarks herein, Applicants respectfully request that the Examiner withdraw all outstanding rejections and allow the currently pending claims.

**Issues Under 35 U.S.C. 103 (a)**

**Mase '590**

Claims 1, 8 and 9 stand rejected under 35 U.S.C. 103 (a) as being obvious over Mase et al. (U.S. 2002/0192590) (hereinafter Mase '590). Applicants respectfully traverse.

The Examiner asserts that Mase '590 teaches a lithographic printing plate comprising a photosensitive layer, wherein the photosensitive layer comprises a hydrophilic polymer, a crosslinking agent and a light absorbing compound and is changed from ink-repellant to ink-receptive by irradiation with light. The Examiner further asserts that Mase '590 teaches

hydrophilic resins with crosslinking groups, and hydrophilic resins “with groups that applicant considers ‘non-crosslinking groups’.”

The Examiner acknowledges that Mase ‘590 does not specifically teach combining a hydrophilic resin with a crosslinking group and a hydrophilic resin with a non-crosslinking group in the photosensitive layer. The Examiner, however, argues that this would have been obvious to one skilled in the art.

Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Additionally, there must be a reason why one of ordinary skill in the art would modify the reference or combine reference teachings to obtain the invention. A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR Int’l Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007). There must be a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *Id.* The Supreme Court of the United States has recently held that the “teaching, suggestion, motivation test” is a valid test for obviousness, albeit one which cannot be too rigidly applied. *Id.* Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.*

Present Invention

The present invention is directed, *inter alia*, to a lithographic printing original plate having a photosensitive layer formed on a support, wherein the photosensitive layer comprises the heat cured product of a photosensitive resin composition, and wherein the photosensitive resin composition comprises a hydrophilic resin having cross-linking groups that can react with a cross-linking agent, a hydrophilic resin having no functional groups that can react with a cross-linking agent (i.e., hydrophilic resin for non-cross linking) which can dissolve out in water, a melamine resin, organic fine particles and a photothermal conversion material. Further, the present claims require that the hydrophilic resin having cross-linking groups that can react with a cross-linking agent is obtained by polymerizing a monomer containing a cross-linking monomer having a hydroxyl group, and the hydrophilic resin having no functional groups that can react with a cross-linking agent is obtained by polymerizing at least one monomer containing a N-alkyl or N-alkylene substituted (meth)acrylamide compound represented by the general formula (1) or (2). Additionally, the present claims require that the photosensitive layer has a phase-separation structure in a sea-island form, and that the island portion in the sea-island form comprises the hydrophilic resin having no functional group and has a diameter mean value of from 0.5  $\mu\text{m}$  to 10  $\mu\text{m}$  (see, e.g., claim 1).

One of the novel features of the present lithographic printing original plate is its capability of forming recessed parts after printing. Applicants have discovered that, when a plate having the claimed photosensitive layer is subjected to printing using a fountain solution, the island phase formed from the hydrophilic resin for non-cross-linking dissolves out in the fountain solution to produce recessed parts on the surface of the photosensitive layer. Applicants

have been able to obtain a lithographic printing original plate which exhibits photosensitivity to light in near infrared regions, on which images can be printed directly with a laser beam requiring no development and wiping off operations, and which can immediately recover from ink stains without any difficulties when an ink attaches to non-image areas. Mase '590 fails to teach or suggest a lithographic printing plate as presently claimed.

Mase '590

As noted above, Mase '590 fails to teach or suggest a lithographic printing plate as presently claimed. For instance, the island portion disclosed in Mase '590 is formed from an aqueous dispersion polymer (see paragraph [0065] of Mase '590). This aqueous dispersion polymer does not have the capability of dissolving out in water. Therefore, the photosensitive layer disclosed in Mase '590 does not exhibit the advantageous effects of the present invention. Moreover, it does not meet the present limitation of a "a hydrophilic resin having no functional groups that can react with a cross-linking agent *and which can dissolve out in water*".

Clearly, Mase '590 fails to teach or suggest each and every limitation of the present invention and thus fails to render the same obvious. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

**Mase '590 in view of secondary references**

Claims 1-3 stand rejected under 35 U.S.C. 103(a) as being obvious over Mase '590 in view of Katano et al. (U.S. 6,387,588) (hereinafter Katano '588). Additionally, claims 1 and 5 stand rejected as being obvious over Mase '590 in view of Isono et al. (U.S. 6,093,509) (hereinafter Isono '509). Applicants respectfully traverse.

The Examiner acknowledges that Mase '590 fails to teach that the diameter of each island portion is in the claimed range, that there are five or more sea-island structures, and that the hydrophilic resin having no crosslinking group is obtained by reacting one or more compounds of formula (3). The Examiner relies on the teachings of Katano '588 and Isono '509 to cure the deficiencies of Mase '590.

Applicants submit that the Examiner has failed to establish a *prima facie* case of obviousness. As discussed above, Mase '590 fails to teach or suggest a plate as presently claimed. Katano '588 and Isono '509 fail to cure these deficiencies.

Katano '588 discloses a plate material for printing comprising a substrate and a recording layer including at least two polymers (see Abstract). However, the polymer which forms an island portion in Katano '588 (Polymer "F") does not have the capability of dissolving out in water. Thus, it does not meet the present limitation of a "a hydrophilic resin having no functional groups that can react with a cross-linking agent *and which can dissolve out in water*".

Isono '509 discloses a lithographic printing plate comprising a hydrophilic layer that has a phase-separated structure. However, the phase-separated structure in Isono '509 comprises a phase mainly composed of a hydrophilic polymer and a phase mainly composed of a hydrophobic polymer (see col.14, lines 9-15). In contrast, the photosensitive layer of the present

invention comprises two hydrophilic resins: one having cross-linking groups that can react with a cross-linking agent, and another one having no functional groups that can react with a cross-linking agent and which can dissolve out in water (see, e.g., claim 1).

Evidently, the cited references, alone or in combination, fail to teach or suggest a plate as presently claimed. Moreover, Applicants respectfully submit that there is no rational underpinning to support the legal conclusion of obviousness, since one skilled in the art would not have been motivated to combine and modify the references as proposed.

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

### Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and objections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.


Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Vanessa Perez-Ramos, Reg. No. 61,158, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated:

Respectfully submitted,

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